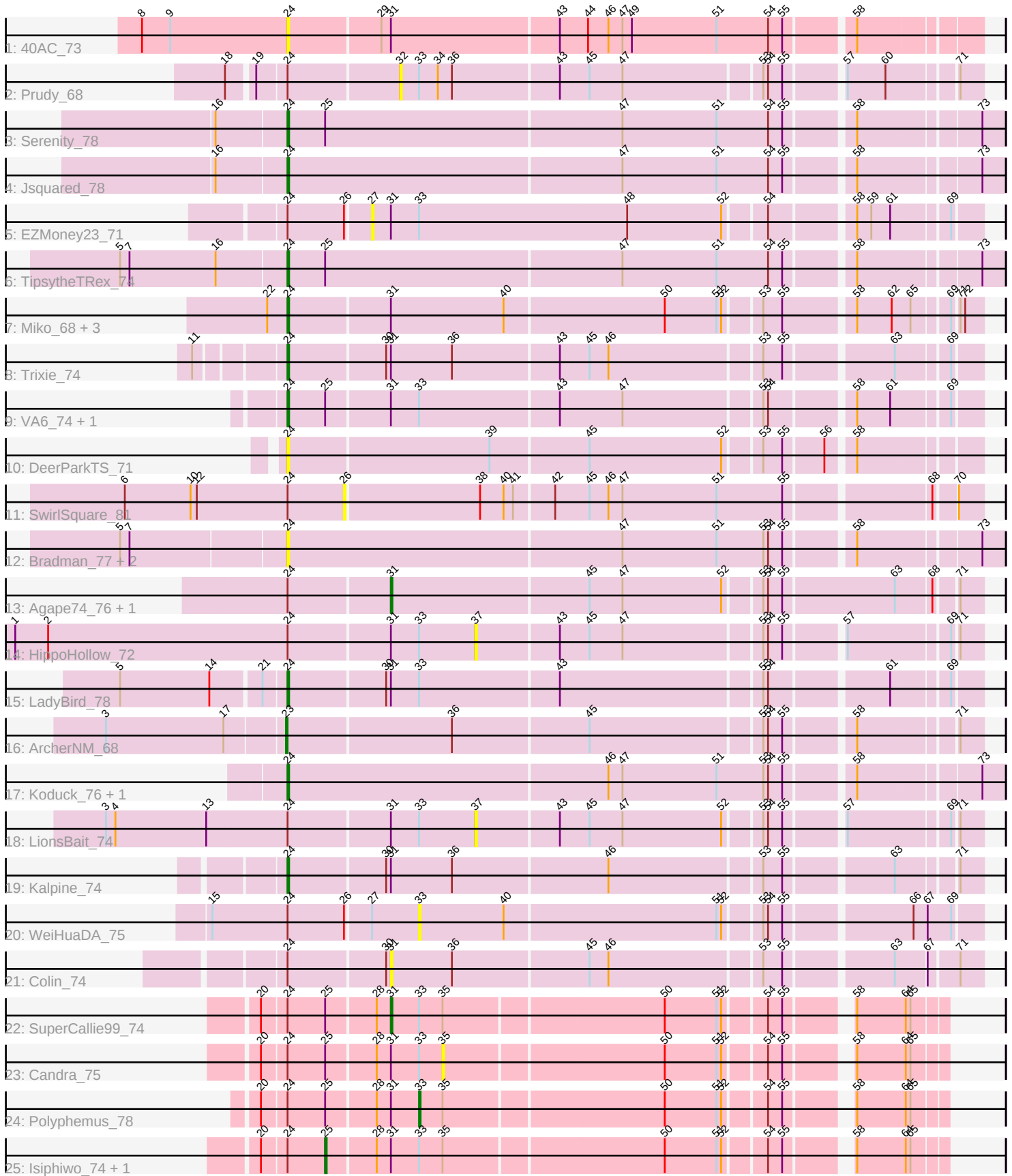


Pham 280670



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 280670 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280670 has 34 members, 14 are drafts.

Phages represented in each track:

- Track 1 : 40AC_73
- Track 2 : Prudy_68
- Track 3 : Serenity_78
- Track 4 : Jsquared_78
- Track 5 : EZMoney23_71
- Track 6 : TopsytheTRex_74
- Track 7 : Miko_68, Rachaly_70, Loko_68, BobSwaget_67
- Track 8 : Trixie_74
- Track 9 : VA6_74, AN3_76
- Track 10 : DeerParkTS_71
- Track 11 : SwirlSquare_81
- Track 12 : Bradman_77, Quokka_76, MajorMajor_76
- Track 13 : Agape74_76, AbbyPaige_76
- Track 14 : HippoHollow_72
- Track 15 : LadyBird_78
- Track 16 : ArcherNM_68
- Track 17 : Koduck_76, L5_70
- Track 18 : LionsBait_74
- Track 19 : Kalpine_74
- Track 20 : WeiHuaDA_75
- Track 21 : Colin_74
- Track 22 : SuperCallie99_74
- Track 23 : Candra_75
- Track 24 : Polyphemus_78
- Track 25 : Isiphiwo_74, SmellyB_77

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 24, it was called in 13 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 40AC_73, AN3_76, BobSwaget_67, Bradman_77, DeerParkTS_71, Jsquared_78, Kalpine_74, Koduck_76, L5_70, LadyBird_78, Loko_68, MajorMajor_76, Miko_68,

Quokka_76, Rachaly_70, Serenity_78, TipsytheTRex_74, Trixie_74, VA6_74,

Genes that have the "Most Annotated" start but do not call it:

- AbbyPaige_76, Agape74_76, Candra_75, Colin_74, EZMoney23_71, HippoHollow_72, Isiphiwo_74, LionsBait_74, Polyphemus_78, Prudy_68, SmellyB_77, SuperCallie99_74, SwirlSquare_81, WeiHuaDA_75,

Genes that do not have the "Most Annotated" start:

- ArcherNM_68,

Summary by start number:

Start 23:

- Found in 1 of 34 (2.9%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArcherNM_68 (A2),

Start 24:

- Found in 33 of 34 (97.1%) of genes in pham
- Manual Annotations of this start: 13 of 20
- Called 57.6% of time when present
- Phage (with cluster) where this start called: 40AC_73 (A17), AN3_76 (A2), BobSwaget_67 (A2), Bradman_77 (A2), DeerParkTS_71 (A2), Jsquared_78 (A2), Kalpine_74 (A2), Koduck_76 (A2), L5_70 (A2), LadyBird_78 (A2), Loka_68 (A2), MajorMajor_76 (A2), Miko_68 (A2), Quokka_76 (A2), Rachaly_70 (A2), Serenity_78 (A2), TipsytheTRex_74 (A2), Trixie_74 (A2), VA6_74 (A2),

Start 25:

- Found in 9 of 34 (26.5%) of genes in pham
- Manual Annotations of this start: 2 of 20
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Isiphiwo_74 (A6), SmellyB_77 (A6),

Start 26:

- Found in 3 of 34 (8.8%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: SwirlSquare_81 (A2),

Start 27:

- Found in 2 of 34 (5.9%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: EZMoney23_71 (A2),

Start 31:

- Found in 21 of 34 (61.8%) of genes in pham
- Manual Annotations of this start: 3 of 20
- Called 19.0% of time when present
- Phage (with cluster) where this start called: AbbyPaige_76 (A2), Agape74_76 (A2), Colin_74 (A2), SuperCallie99_74 (A6),

Start 32:

- Found in 1 of 34 (2.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Prudy_68 (A2),

Start 33:

- Found in 13 of 34 (38.2%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Polyphemus_78 (A6), WeiHuaDA_75 (A2),

Start 35:

- Found in 5 of 34 (14.7%) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Candra_75 (A6),

Start 37:

- Found in 2 of 34 (5.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HippoHollow_72 (A2), LionsBait_74 (A2),

Summary by clusters:

There are 3 clusters represented in this pham: A17, A2, A6,

Info for manual annotations of cluster A2:

- Start number 23 was manually annotated 1 time for cluster A2.
- Start number 24 was manually annotated 13 times for cluster A2.
- Start number 31 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A6:

- Start number 25 was manually annotated 2 times for cluster A6.
- Start number 31 was manually annotated 1 time for cluster A6.
- Start number 33 was manually annotated 1 time for cluster A6.

Gene Information:

Gene: 40AC_73 Start: 45297, Stop: 44878, Start Num: 24

Candidate Starts for 40AC_73:

(8, 45390), (9, 45372), (Start: 24 @45297 has 13 MA's), (29, 45240), (Start: 31 @45234 has 3 MA's), (43, 45129), (44, 45111), (46, 45099), (47, 45090), (49, 45084), (51, 45030), (54, 44997), (55, 44988), (58, 44949),

Gene: AN3_76 Start: 43653, Stop: 43240, Start Num: 24

Candidate Starts for AN3_76:

(Start: 24 @43653 has 13 MA's), (Start: 25 @43629 has 2 MA's), (Start: 31 @43590 has 3 MA's),
(Start: 33 @43572 has 1 MA's), (43, 43485), (47, 43446), (53, 43362), (54, 43359), (58, 43311), (61,
43290), (69, 43257),

Gene: AbbyPaige_76 Start: 45068, Stop: 44712, Start Num: 31

Candidate Starts for AbbyPaige_76:

(Start: 24 @45131 has 13 MA's), (Start: 31 @45068 has 3 MA's), (45, 44945), (47, 44924), (52, 44861),
(53, 44840), (54, 44837), (55, 44828), (63, 44759), (68, 44738), (71, 44726),

Gene: Agape74_76 Start: 45063, Stop: 44707, Start Num: 31

Candidate Starts for Agape74_76:

(Start: 24 @45126 has 13 MA's), (Start: 31 @45063 has 3 MA's), (45, 44940), (47, 44919), (52, 44856),
(53, 44835), (54, 44832), (55, 44823), (63, 44754), (68, 44733), (71, 44721),

Gene: ArcherNM_68 Start: 44346, Stop: 43933, Start Num: 23

Candidate Starts for ArcherNM_68:

(3, 44457), (17, 44382), (Start: 23 @44346 has 1 MA's), (36, 44244), (45, 44160), (53, 44055), (54,
44052), (55, 44043), (58, 44004), (71, 43947),

Gene: BobSwaget_67 Start: 42656, Stop: 42240, Start Num: 24

Candidate Starts for BobSwaget_67:

(22, 42668), (Start: 24 @42656 has 13 MA's), (Start: 31 @42593 has 3 MA's), (40, 42521), (50, 42422),
(51, 42389), (52, 42386), (53, 42365), (55, 42353), (58, 42311), (62, 42290), (65, 42278), (69, 42257),
(71, 42254), (72, 42251),

Gene: Bradman_77 Start: 44213, Stop: 43776, Start Num: 24

Candidate Starts for Bradman_77:

(5, 44315), (7, 44309), (Start: 24 @44213 has 13 MA's), (47, 44003), (51, 43943), (53, 43913), (54,
43910), (55, 43901), (58, 43862), (73, 43790),

Gene: Candra_75 Start: 43553, Stop: 43263, Start Num: 35

Candidate Starts for Candra_75:

(20, 43664), (Start: 24 @43649 has 13 MA's), (Start: 25 @43625 has 2 MA's), (28, 43595), (Start: 31
@43586 has 3 MA's), (Start: 33 @43568 has 1 MA's), (35, 43553), (50, 43418), (51, 43385), (52,
43382), (54, 43358), (55, 43349), (58, 43316), (64, 43286), (65, 43283),

Gene: Colin_74 Start: 45728, Stop: 45375, Start Num: 31

Candidate Starts for Colin_74:

(Start: 24 @45791 has 13 MA's), (30, 45731), (Start: 31 @45728 has 3 MA's), (36, 45689), (45, 45605),
(46, 45593), (53, 45500), (55, 45488), (63, 45425), (67, 45407), (71, 45389),

Gene: DeerParkTS_71 Start: 43815, Stop: 43402, Start Num: 24

Candidate Starts for DeerParkTS_71:

(Start: 24 @43815 has 13 MA's), (39, 43689), (45, 43629), (52, 43545), (53, 43524), (55, 43512), (56,
43488), (58, 43473),

Gene: EZMoney23_71 Start: 44532, Stop: 44167, Start Num: 27

Candidate Starts for EZMoney23_71:

(Start: 24 @44583 has 13 MA's), (26, 44547), (27, 44532), (Start: 31 @44520 has 3 MA's), (Start: 33
@44502 has 1 MA's), (48, 44370), (52, 44310), (54, 44286), (58, 44238), (59, 44229), (61, 44217), (69,
44184),

Gene: HippoHollow_72 Start: 45776, Stop: 45480, Start Num: 37

Candidate Starts for HippoHollow_72:

(1, 46067), (2, 46046), (Start: 24 @45893 has 13 MA's), (Start: 31 @45830 has 3 MA's), (Start: 33 @45812 has 1 MA's), (37, 45776), (43, 45725), (45, 45707), (47, 45686), (53, 45602), (54, 45599), (55, 45590), (57, 45557), (69, 45497), (71, 45494),

Gene: Isiphiwo_74 Start: 43606, Stop: 43244, Start Num: 25

Candidate Starts for Isiphiwo_74:

(20, 43645), (Start: 24 @43630 has 13 MA's), (Start: 25 @43606 has 2 MA's), (28, 43576), (Start: 31 @43567 has 3 MA's), (Start: 33 @43549 has 1 MA's), (35, 43534), (50, 43399), (51, 43366), (52, 43363), (54, 43339), (55, 43330), (58, 43297), (64, 43267), (65, 43264),

Gene: Jsquared_78 Start: 44346, Stop: 43909, Start Num: 24

Candidate Starts for Jsquared_78:

(16, 44388), (Start: 24 @44346 has 13 MA's), (47, 44136), (51, 44076), (54, 44043), (55, 44034), (58, 43995), (73, 43923),

Gene: Kalpine_74 Start: 45137, Stop: 44724, Start Num: 24

Candidate Starts for Kalpine_74:

(Start: 24 @45137 has 13 MA's), (30, 45077), (Start: 31 @45074 has 3 MA's), (36, 45035), (46, 44939), (53, 44846), (55, 44834), (63, 44771), (71, 44738),

Gene: Koduck_76 Start: 44123, Stop: 43686, Start Num: 24

Candidate Starts for Koduck_76:

(Start: 24 @44123 has 13 MA's), (46, 43922), (47, 43913), (51, 43853), (53, 43823), (54, 43820), (55, 43811), (58, 43772), (73, 43700),

Gene: L5_70 Start: 44276, Stop: 43839, Start Num: 24

Candidate Starts for L5_70:

(Start: 24 @44276 has 13 MA's), (46, 44075), (47, 44066), (51, 44006), (53, 43976), (54, 43973), (55, 43964), (58, 43925), (73, 43853),

Gene: LadyBird_78 Start: 45434, Stop: 45021, Start Num: 24

Candidate Starts for LadyBird_78:

(5, 45533), (14, 45476), (21, 45446), (Start: 24 @45434 has 13 MA's), (30, 45374), (Start: 31 @45371 has 3 MA's), (Start: 33 @45353 has 1 MA's), (43, 45266), (53, 45143), (54, 45140), (61, 45071), (69, 45038),

Gene: LionsBait_74 Start: 45777, Stop: 45481, Start Num: 37

Candidate Starts for LionsBait_74:

(3, 46008), (4, 46002), (13, 45945), (Start: 24 @45894 has 13 MA's), (Start: 31 @45831 has 3 MA's), (Start: 33 @45813 has 1 MA's), (37, 45777), (43, 45726), (45, 45708), (47, 45687), (52, 45624), (53, 45603), (54, 45600), (55, 45591), (57, 45558), (69, 45498), (71, 45495),

Gene: Lokk_68 Start: 43280, Stop: 42864, Start Num: 24

Candidate Starts for Lokk_68:

(22, 43292), (Start: 24 @43280 has 13 MA's), (Start: 31 @43217 has 3 MA's), (40, 43145), (50, 43046), (51, 43013), (52, 43010), (53, 42989), (55, 42977), (58, 42935), (62, 42914), (65, 42902), (69, 42881), (71, 42878), (72, 42875),

Gene: MajorMajor_76 Start: 44213, Stop: 43776, Start Num: 24

Candidate Starts for MajorMajor_76:

(5, 44315), (7, 44309), (Start: 24 @44213 has 13 MA's), (47, 44003), (51, 43943), (53, 43913), (54, 43910), (55, 43901), (58, 43862), (73, 43790),

Gene: Miko_68 Start: 44058, Stop: 43642, Start Num: 24

Candidate Starts for Miko_68:

(22, 44070), (Start: 24 @44058 has 13 MA's), (Start: 31 @43995 has 3 MA's), (40, 43923), (50, 43824), (51, 43791), (52, 43788), (53, 43767), (55, 43755), (58, 43713), (62, 43692), (65, 43680), (69, 43659), (71, 43656), (72, 43653),

Gene: Polyphemus_78 Start: 44355, Stop: 44050, Start Num: 33

Candidate Starts for Polyphemus_78:

(20, 44451), (Start: 24 @44436 has 13 MA's), (Start: 25 @44412 has 2 MA's), (28, 44382), (Start: 31 @44373 has 3 MA's), (Start: 33 @44355 has 1 MA's), (35, 44340), (50, 44205), (51, 44172), (52, 44169), (54, 44145), (55, 44136), (58, 44103), (64, 44073), (65, 44070),

Gene: Prudy_68 Start: 44804, Stop: 44460, Start Num: 32

Candidate Starts for Prudy_68:

(18, 44906), (19, 44891), (Start: 24 @44873 has 13 MA's), (32, 44804), (Start: 33 @44792 has 1 MA's), (34, 44780), (36, 44771), (43, 44705), (45, 44687), (47, 44666), (53, 44582), (54, 44579), (55, 44570), (57, 44537), (60, 44513), (71, 44474),

Gene: Quokka_76 Start: 44213, Stop: 43776, Start Num: 24

Candidate Starts for Quokka_76:

(5, 44315), (7, 44309), (Start: 24 @44213 has 13 MA's), (47, 44003), (51, 43943), (53, 43913), (54, 43910), (55, 43901), (58, 43862), (73, 43790),

Gene: Rachaly_70 Start: 44203, Stop: 43787, Start Num: 24

Candidate Starts for Rachaly_70:

(22, 44215), (Start: 24 @44203 has 13 MA's), (Start: 31 @44140 has 3 MA's), (40, 44068), (50, 43969), (51, 43936), (52, 43933), (53, 43912), (55, 43900), (58, 43858), (62, 43837), (65, 43825), (69, 43804), (71, 43801), (72, 43798),

Gene: Serenity_78 Start: 44410, Stop: 43973, Start Num: 24

Candidate Starts for Serenity_78:

(16, 44452), (Start: 24 @44410 has 13 MA's), (Start: 25 @44386 has 2 MA's), (47, 44200), (51, 44140), (54, 44107), (55, 44098), (58, 44059), (73, 43987),

Gene: SmellyB_77 Start: 43589, Stop: 43227, Start Num: 25

Candidate Starts for SmellyB_77:

(20, 43628), (Start: 24 @43613 has 13 MA's), (Start: 25 @43589 has 2 MA's), (28, 43559), (Start: 31 @43550 has 3 MA's), (Start: 33 @43532 has 1 MA's), (35, 43517), (50, 43382), (51, 43349), (52, 43346), (54, 43322), (55, 43313), (58, 43280), (64, 43250), (65, 43247),

Gene: SuperCallie99_74 Start: 44072, Stop: 43749, Start Num: 31

Candidate Starts for SuperCallie99_74:

(20, 44150), (Start: 24 @44135 has 13 MA's), (Start: 25 @44111 has 2 MA's), (28, 44081), (Start: 31 @44072 has 3 MA's), (Start: 33 @44054 has 1 MA's), (35, 44039), (50, 43904), (51, 43871), (52, 43868), (54, 43844), (55, 43835), (58, 43802), (64, 43772), (65, 43769),

Gene: SwirlSquare_81 Start: 44189, Stop: 43806, Start Num: 26

Candidate Starts for SwirlSquare_81:

(6, 44327), (10, 44285), (12, 44282), (Start: 24 @44225 has 13 MA's), (26, 44189), (38, 44105), (40, 44090), (41, 44084), (42, 44060), (45, 44039), (46, 44027), (47, 44018), (51, 43958), (55, 43916), (68, 43832), (70, 43820),

Gene: TipsytheTRex_74 Start: 44412, Stop: 43975, Start Num: 24

Candidate Starts for TipsytheTRex_74:

(5, 44514), (7, 44508), (16, 44454), (Start: 24 @44412 has 13 MA's), (Start: 25 @44388 has 2 MA's), (47, 44202), (51, 44142), (54, 44109), (55, 44100), (58, 44061), (73, 43989),

Gene: Trixie_74 Start: 45538, Stop: 45125, Start Num: 24

Candidate Starts for Trixie_74:

(11, 45586), (Start: 24 @45538 has 13 MA's), (30, 45478), (Start: 31 @45475 has 3 MA's), (36, 45436), (43, 45370), (45, 45352), (46, 45340), (53, 45247), (55, 45235), (63, 45172), (69, 45142),

Gene: VA6_74 Start: 44831, Stop: 44418, Start Num: 24

Candidate Starts for VA6_74:

(Start: 24 @44831 has 13 MA's), (Start: 25 @44807 has 2 MA's), (Start: 31 @44768 has 3 MA's), (Start: 33 @44750 has 1 MA's), (43, 44663), (47, 44624), (53, 44540), (54, 44537), (58, 44489), (61, 44468), (69, 44435),

Gene: WeiHuaDA_75 Start: 45500, Stop: 45162, Start Num: 33

Candidate Starts for WeiHuaDA_75:

(15, 45629), (Start: 24 @45581 has 13 MA's), (26, 45545), (27, 45530), (Start: 33 @45500 has 1 MA's), (40, 45446), (51, 45314), (52, 45311), (53, 45290), (54, 45287), (55, 45278), (66, 45203), (67, 45194), (69, 45179),